

Sago Pondweed Fact Sheet



Description:

Sago pondweed (*Stuckenia pectinata*) is a **perennial** species of submerged aquatic vegetation and is native to the Chesapeake Bay. The slender stems are branched so that the leaves look like bushy clusters floating on the water's surface. The leaves are long (about 10 cm or 4 in.) and thread-like and are arranged in an **alternate** pattern along the branches. The slender roots and **rhizomes** are long and straight.

Distribution:

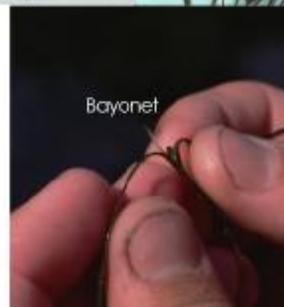
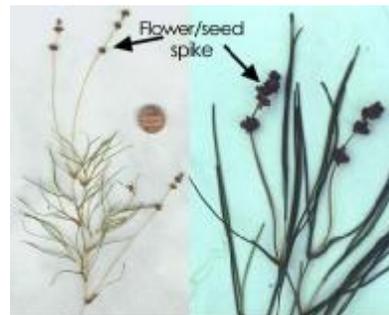
Sago pondweed is found in the United States, South America, Africa, Europe and Japan. In the Chesapeake, it is found in fresh to moderately brackish water. It can grow in water with strong currents or wave action better than most SAV because of its long roots and rhizomes. It can grow in areas with poor water quality and may be the only species of SAV in polluted sites. Turbidity is the factor that most frequently limits growth.

Reproduction:

Reproduction in sago pondweed is by both seed formation (sexual) and vegetative (asexual) reproduction.

Sexual reproduction occurs from June through August. Bead-like flowers form a spike at the end of a stalk. Pollen is released from the flowers and floats on the water resulting in fertilization. The developing seeds remain on the spike until autumn when they fall into the water.

Asexual or vegetative **reproduction** is more common and happens in two ways. One type of **tuber** is produced at the ends of the underground rhizomes and **runners**. Another type of tuber forms at the end of the leaf shoots; this type of tuber occurs alone or in pairs and is later released to sink into the substrate. After over-wintering, both kinds of tubers form new plants in spring.



Importance:

Sago pondweed is extremely important in the Chesapeake because it is a food source for birds, including waterfowl (especially diving ducks and swans), marsh birds, and shorebirds. The tubers and seeds are very nutritious, but leaves, stems and roots are also eaten. Sago also provides food for amphibians, reptiles, fish, and mammals. Sago beds provide habitat for a large number of invertebrates, which in turn are an important food source for young waterfowl.



The northern pintail, one of the many species of ducks that feeds on Sago pondweed.

Because its long rhizomes and runners provide a strong anchorage in the substrate, sago pondweed helps reduce erosion. The leaves provide shelter, support, and an increased oxygen supply for many aquatic animals. Sago also acts as a nutrient buffer by using dissolved nitrogen and phosphorus for growth. This helps reduce algae blooms by making the nutrients unavailable for the algae.

Vocabulary:

Alternate (alternately) – not arranged in pairs; leaves alternate direction along the stem

Asexual reproduction – in plants, reproduction by cell division rather than by seeds; also called vegetative reproduction

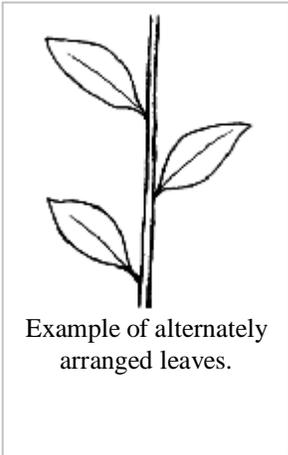
Perennial – a plant that lives more than two years

Rhizome – horizontal stem either lying on the sediment surface or buried; usually with roots and new shoots at stem nodes

Runners – branches off rhizomes usually with tubers produced at the ends

Sexual reproduction – in plants, reproduction by means of seeds

Tuber – a vegetative (asexual) bud buried in the sediment and usually formed at the end of runners; capable of remaining dormant before growing into a new plant.



Example of alternately arranged leaves.



Sago Pondweed
Read for Understanding Questions

1. How would you recognize sago pondweed?
2. Is sago pondweed native to the Chesapeake? Where else is it found?
3. Describe the most common form of reproduction in sago pondweed.
4. Give two reasons that sago pondweed is important for birds.
5. You want to plant SAV in a relatively fast flowing creek near the Bay. The water is clear but somewhat polluted. Would sago pondweed be a good choice? Why or why not?



Sago Pondweed

Read for Understanding Answers

1. How would you recognize sago pondweed? *Sago pondweed has slender stems with long (up to 4 inches) threadlike leaves. The leaves are arranged alternately along the stems and look like bushy clusters on the water surface.*
2. Is sago pondweed native to the Chesapeake? Where else is it found? *Sago pondweed is native to the Chesapeake but it is also found in other parts of the United States as well as South America, Africa, Europe and Japan.*
3. Describe the most common form of reproduction in sago pondweed. *The most common form of reproduction is asexual. Two kinds of tubers are formed – one at the ends of the underground rhizomes and runners and the other at the ends of the leaf shoots. Both kinds of tubers spend the winter buried in the substrate and form new plants in the spring.*
4. Give two reasons that sago pondweed is important for birds. *Sago pondweed provides food for waterfowl, marsh birds and shorebirds. All parts of the plant are eaten but the seeds and tubers are especially nutritious. Sago pondweed also provides habitat for invertebrates which are food for birds, especially young waterfowl.*
5. You want to plant SAV in a relatively fast flowing creek near the Bay. The water is clear but somewhat polluted. Would sago pondweed be a good choice? Why or why not? *Sago pondweed would be a good choice because the long roots and rhizomes help hold it in running water. It also tolerates some pollution. The water in the creek is clear, so turbidity is not a problem.*

